

IN THE CLAIMS

Upon entry of the present amendment, the status of the claims will be as is shown below. This listing of claims replaces all prior versions and listings of claims in the application:

1-7 (Cancelled)

8. (Previously Presented) The digital reception apparatus according to claim 13, wherein the linear compensator corrects the non-linear distortion using at least a non-linear quantization characteristic of the quantizer.

Claims 9-12 (Cancelled)

13. (Currently Amended) A digital reception apparatus, comprising:
a receiver that performs reception processing on a received signal, the receiver comprising a non-linear quantizer that converts the received signal to a non-linear quantized signal;
a distortion converter that converts the non-linear quantized signal to a linear signal for demodulation, the distortion converter comprising a linear compensator, the non-linear quantized signal being input to the linear compensator which determines a correcting signal that is indicative of an inverse characteristic of the non-linear quantized signal, the correcting signal being

utilized by the linear compensator to convert the non-linear quantized signal to the linear signal,

~~the distortion converter~~ linear compensator further comprising:

a filter calculator that performs a filter calculation on the non-linear quantized signal.

14. (Previously Presented) A digital reception apparatus, comprising:

a receiver that performs reception processing on a received signal, the receiver comprising a non-linear quantizer that converts the received signal to a non-linear quantized signal;

a distortion converter that converts the non-linear quantized signal to a linear signal for demodulation, the distortion converter comprising a linear compensator, the non-linear quantized signal being input to the linear compensator which determines a correcting signal that is indicative of an inverse characteristic of the non-linear quantized signal, the correcting signal being utilized by the linear compensator to convert the non-linear quantized signal to the linear signal,

wherein the linear compensator comprises a distortion compensator that multiplies the received signal and the correcting signal to remove the non-linear distortion from the received signal.

Claims 15-16 (Cancelled)

17. (Previously Presented) The digital reception apparatus according to claim 13, wherein the received signal comprises an instantaneous signal.

18-31 (Cancelled)